

REMARKS

Claims 1-9 and 12-19 are pending in the present application. Claims 10 and 11 have been canceled. Claims 1, 9, 13, 17, 18 and 19 are independent.

Initially, Applicants appreciate the Examiner's withdrawal of the previous art rejections.

Allowable Subject Matter

Although Applicants appreciate the Examiner's indication that claim 17 is allowed, Applicants are rather confused by this allowance because claim 17 is also rejected under 35 USC 112, first paragraph. Clarification as to this point would be highly appreciated.

Applicants further appreciate that claims 3, 4, 7, 10, and 11 recite allowable subject matter and would be allowable if rewritten into independent form including all the features of the base claim and any intervening claims. For the reasons discussed below, Applicants believe that all of the pending claims are in condition for allowance.

35 USC §112 First Paragraph

Claims 1-8, 10-12 and 17 are rejected under 35 USC 112, first paragraph as allegedly failing to comply with the enablement requirement.

Initially, Applicants note that the rejection based on the claim language "determining a rate of pixels based on a number of pixels having a maximum brightness among all pixels, wherein the maximum brightness of all pixels is taken from a group of commonly encountered brightness; and automatically making an adjustment to said pixel value based on the rate" is language that is no longer utilized in the claims. Please see the above amendments for details. Applicants further assert that this rejection resulted because of unclear claim language that was perhaps objectionable but that any such unclear claim language certainly does not rise to the level of a proper rejection under 35 USC 112 first or second paragraphs.

Applicants further assert that the amended claim language enjoys full and enabling support in the specification as filed. For example, the above amendments correspond to the specification at page 4, lines 13-18; the paragraph bridging pages 4 and 5, page 7 lines 3-7; page 8, lines 12-16; page 10, second paragraph, page 13, second paragraph as well as pages 15-16 and Figures 1 and 2.

With regard to the other component of the first paragraph rejection concerning claims 2-4 and 8 and the issue of an alleged lack of support in the specification for an adjustment made to the image acquisition device and the pixel values based on the rate of pixels having the maximum brightness among all pixels, Applicants respond as follows. As the Examiner has correctly stated, there are multiple embodiments, one in which a pre-photography adjustment is made to the camera based on the brightness of the previously captured image. Applicants have amended claim 2 on this basis and have also made amendments to claims 3 and 4 such that claims 3 and 4 now depend from claim 1 and that the adjustment is made to the image rather than the exposure value which is an adjustment consistent with the transformation equations recited therein.

Similar amendments are made to claim 5. In addition, claims 10 and 11 have been canceled and the dependency of claim 12 changed so as to provide consistency among the claim terminology and as it relates to the various embodiments of the invention.

Furthermore, the adjustments in many of the claims are now relative to the "image" rather than the exposure value or pixel value so as to generically recite a method or apparatus that applies to all embodiments. These changes are made to the independent claims.

In view of the above amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the 35 USC 112 first paragraph rejection.

35 USC 103 Asaida-Lu-Kim Rejection

Claims 1, 2, 5-8, 13-16 and 19 are rejected under 35 USC 103(a) as being unpatentable over Asaida (USP 4,943,850) in view of Lu (USP 5,504,524) in view of Kim (USP 6,018,588). Furthermore, claims 9, 12 and 18 are rejected under 35 USC 103(a) as being unpatentable over Asaida in view of Lu. These rejections, insofar as they pertain to the presently pending claims, are respectfully traversed.

As admitted by the Office Action, Asaida fails to disclose or suggest major components of the invention including defining the brightness of each pixel based on three mutually independent components for determining a rate of pixels based on a number of pixels having a maximum brightness and automatically making an adjustment to the pixel value based on the rate. Given these major deficiencies, it is not understood how Asaida can properly be combined with the Lu and Kim patents.

It appears that Lu is the primary reference relied upon by the Office Action to reject the claims. Lu discloses a digital color balance controller 10 which is utilized to correct the color balance between the three color channels, i.e., red, blue and green. To perform this function, each color channel is compared against four threshold levels B1 to B4 thereby establishing five intensity bands B0 to B5. An exposure judgment controller 16 maintains a count of pixels for each color channel that exceeds threshold level B3. This count N(1) is utilized to indicate overexposure. Specifically, if $N(1) > 1\%$ then the image is deemed to be overexposed such that the exposure control device 19 can make adjustments.

Lu refers to a “satisfactory exposure time” in column 7, lines 26-30 but the satisfactory exposure time and the operations performed by the exposure control device and color balance controller 10 fail to disclose or suggest making an adjustment to the image such that a rate (ratio) of pixels having a maximum brightness is equal to a predetermined rate (ratio). There is no predetermined ratio in Lu and no concept of making an adjustment such that the rate (ratio) of pixels having a maximum brightness is equal to such a predetermined rate (ratio). Instead, Lu merely determines whether the image is overexposed using the threshold values and counts and

makes an adjustment to the exposure to avoid an overexposed image. Such a generalized concept does not disclose or suggest the specifics of making an adjustment to the image as now recited in independent claim 1.

Furthermore, Lu even when taken in combination with Asaida and Kim, fails to disclose or suggest the digital camera of independent claim 9 particularly the exposure control means for automatically making an adjustment to an exposure value at the time of photographing according to the histogram so that a rate (ratio) of pixels having a maximum brightness is equal to a predetermined rate (ratio); or the image processor of independent claim 13 particularly the data transformation means for automatically performing a data transformation process on the acquired digital data according to the histogram so that a rate (ratio) of pixels having a maximum brightness is equal to a predetermined rate (ratio). Still further, the combination of Asaida, Lu and Kim also fails to disclose or suggest the method of adjusting the brightness of an image as recited in claim 17, particularly the step of making an adjustment to a pixel value so that a rate (ratio) of pixels having a maximum brightness is equal to a predetermined rate (ratio). Still further, the combination of applied art also fails to disclose or suggest the digital camera of claim 18, particularly the exposure control means for automatically making an adjustment to an exposure value at the time of photographing according to the histogram so that a rate of pixels having a maximum brightness among all pixels is equal to a predetermined rate. Nor does the combination of art disclose or suggest an image processor as recited in claim 19, particularly the data transformation means for automatically performing a data transformation process on the acquired digital data according to the histogram so that a rate of pixels having a maximum brightness among all pixels is equal to a predetermined rate.

Indeed, the Office Action clearly admits that the combination of Asaida and Lu lacks automatic adjustments to the pixel value and instead alters camera exposure settings. The Office Action further proposes to add Kim to the base combination but such an addition lacks motivation because changing pixel values and altering camera exposure settings are widely distinct techniques having no common thread between them other than the impermissible hindsight thread.

Indeed, the Office Action appears to be engaging in hindsight reconstruction by utilizing the specification as a guide to combine the desperate teachings of the three applied patents. Obviousness cannot be established by hindsight combination to produce the claimed invention. *In re Gorman*, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed.Cir.1991). It is the prior art itself, and not the appellants' achievement, that must establish the obviousness of the combination. Therefore, Appellants submit that the only motivation to make such modifications to Lu, Asaida and Kim is based on an impermissible hindsight reference to Appellants' specification.

Appellant respectfully submits that an analysis of the propriety of any rejection under 35 U.S.C. § 103(a) begins with the text of that section, particularly the phrase "at the time that the invention was made." It is this phrase which guards against entry into the "tempting but forbidden zone of hindsight." *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1616 (Fed. Cir. 1999). Measuring a claimed invention against the standard established by Section 103 "requires the often difficult but critical step of casting the mind back to the time of the invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then accepted wisdom in the field." *Id.*, 50 U.S.P.Q.2d at 1617.

The Federal Circuit has made it very clear that "the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosures as a blueprint for piecing together the prior art to defeat patentability – the essence of hindsight." *Id.*

The required "evidence" of a teaching, suggestion or motivation to make the cited combination of references can be found in the prior art references themselves (the most typical location), the knowledge of one of ordinary skill in the art, or in some cases, from the nature of the problem to be solved. *Id.* The range of potential sources; however, does nothing to diminish

the requirement for actual evidence. “The showing must be clear and particular” and cannot be met by broad conclusory statements. *Id.*

There is simply no evidence of record in this application that provides any teaching, suggestion or motivation to so modify the cited prior art reference, let alone a showing that is “clear and particular” as it must be. *See, e.g., In re Dembiczak, supra*, 50 U.S.P.Q.2d at 1617. Hence, to the limited extent that the cited reference might be modified so as to accomplish Appellant’s claimed invention (a fact that Appellant strongly contends, *supra*, cannot be done), it is only through the “blueprint drawn by the inventor,” *Interconnect Planning Corp. v. Feil*, 227 U.S.P.Q. 543, 547 (Fed. Cir. 1985), that that combination can be assembled, not from the state of the art at the time of Appellant’s invention as it must be.

Furthermore, Kim is limited to a pipeline processing technique for changing brightness values. Although a histogram equalizer is included, there is no disclosure or suggestion of the particular methods, steps and apparatus elements as recited in each of the independent claims. These specific elements are argued above in detail and are not being repeated here.

For all of the above reasons, taken alone or in combination, Applicants respectfully request reconsideration and withdrawal of the §103 Asaida-Lu-Kim rejection.

Conclusion

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Michael R. Cammarata (Reg. No. 39,491) at (703) 205-8000.

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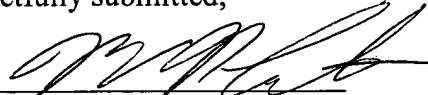
Docket No.: 2091-0162P

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.

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Respectfully submitted,

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